

C. AMENDMENTS TO THE DRAWING FIGURES

All 9 sheets of **Figures 1-10** are replaced with 9 new sheets of **Replacement Figures 1-10** . These sheets are included with this Amendment as Exhibit A and are discussed under **Remarks**.

D. REMARKS

This Amendment is in response to a non-final Office Action bearing a mailing date of July 13, 2007.

The Applicant's claimed invention is to a surface-mounted anchoring system for use in the construction of a wall. The wall more specifically is a cavity wall having an inner wythe or, more commonly, a backup wall and an outer wythe or, more commonly, a veneer. In the cavity between the wythes, it is required by some building codes to provide insulation on the exterior of the inner wythe, the integrity of which is to be intact after the anchoring system is installed. All of this information is preamble.

Comment as to Preamble Language

The undersigned Attorney writes the following comments relative to the preamble language of the claims, the extent thereof, and the nature of the patentable weight accorded thereto. The era introduced by the KSR decision, which affirms that the "functional approach" to claims analysis is alive and well, looks toward claim language to elucidate the technological milieu of the invention. It is posited that the descriptiveness of the preamble fulfills this vital role and, while it is agreed that such language provides "no patentable weight", the inclusion thereof is a filter for considering the "teaching" and "suggestion" of disparate references.

An example of the filtering role is found upon considering the proper treatment of claim phrases such as "said legs adapted for insertion into *said exterior layer of said inner wythe* " and "adapted to preclude penetration of air, moisture and water into *said exterior layer*" [italic bold language from the claim preamble], which phrases the Examiner declares to be intended use and of no patentable weight. Clearly, the intended use of an anchoring device is to hold the outer wythe onto the inner wythe and also clearly, the anchoring device of the invention performs in this manner while precluding penetration of air, moisture and water vapor. Thus, the invention is distinguished over earlier anchoring devices described in Hohmann, U.S. 4,598,518, which earlier devices failed to *function* similarly. The description of the invented structure rightly included this language, if only to boldly state that Hohmann '518 does not "teach" or "suggest" the function now performed by the invention. The intended use of the anchoring device is not to plug up holes, but when the invention does do so while fulfilling its anchoring role, the invention *functions* in the manner described.

Drawings

As to Paragraph 1 and 2 of the Detailed Action, reference designator 286 has been added to Fig. 9 of the Drawings. It is noted that reference designator 142 was an error and is replaced

in the Specification, *infra*, and that reference designator 47 already is shown on the Replacement Sheets at Fig. 2.

A complete set of Replacement Sheets is presented herewith.

Specification

The Examiner errs in Paragraph 3 of the Detailed Action in stating that ***the two surfaces are not shown as coplanar in the drawings***. In the visual aid provided herewith a green line is drawn showing the coplanar characteristic of the two surfaces.

As to Paragraph 4 of the Detailed Action, the matter the Examiner views as new matter has been deleted. Paragraph [068] has been amended to delete reference designator 142 and insert in lieu thereof reference designators 154 and 156.

Claim Rejections - 35 USC §112

As to Paragraph 5 of the Detailed Action the following is added by way of Remarks. It is clear that the language before the first ***comprising*** in a claim is preamble language and not claim elements. The discussion, *supra*, amply treats this area of concern. Furthermore, when preamble language is used in the body of the claim, such as pointed out by the Examiner in Claims 3 and 15, the term is used with the term ***adapted to*** thereby setting the term apart and signaling the term is there to explain the function of the claim element under discussion.

Paragraph 53 of the Application explains that a problem with

prior art sheetmetal anchoring systems is that a thermal bridge is formed between the anchor and the metal columns of the drywall construct. An important advantage of the present invention is that the point terminations preclude such transfer and the language of Claims 5 and 17 explains this relationship. Claims must be read in the context of the specification. If there is a suggestion by the Examiner of a more acceptable phrasing, Applicant would be open to discussing changes in this regard.

The Figures 2, 3, and 4 have been reduced for placement on a single page. The text, when read together with the illustrations, clearly show the sheetmetal bending involved in the construction of this wall anchor. As an aid to understanding the text, colored markings on the drawings provide an additional visual aid. The green angular markings show the leg bends and the red angular markings show the base bends. The green line superimposed on Fig. 4 show surface 58 and surface 60 as being coplanar. A typical series of metalworking steps to produce the finished inboard legs 54 and 56 would include stamping of the basic flat shape, swaging the channels 47, folding the 90° bend between the legs 54 and 56 and the leg bases 58, folding the 180° bend between the leg bases 58 and the base surface 60, and swaging the leg bases 58 and base surface 60 into a substantially coplanar form. The Examiner is requested to re-read the text at Paragraph 62 of the Application

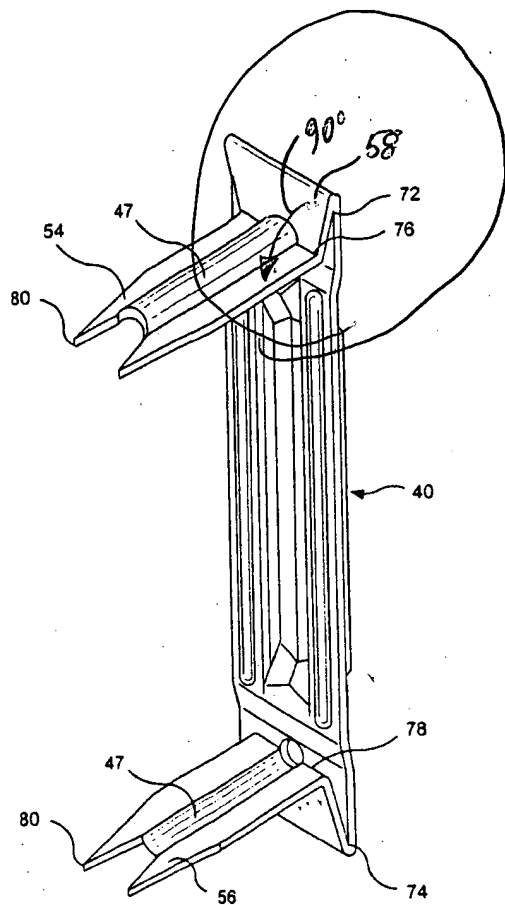


FIG. 2

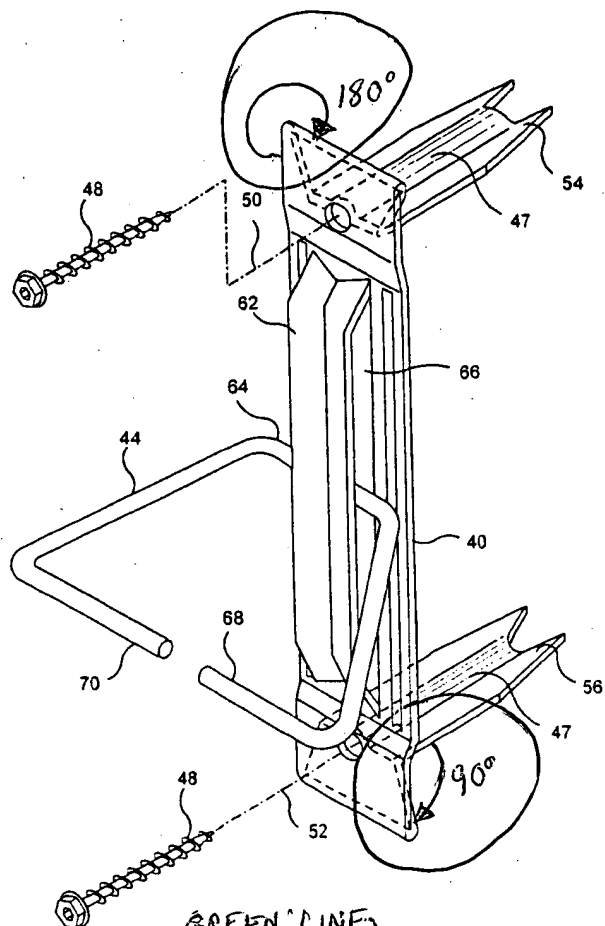
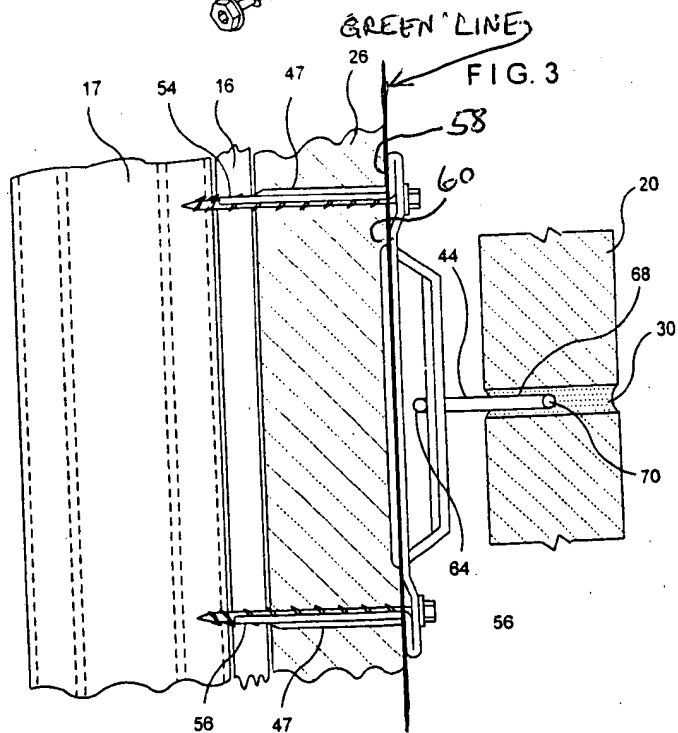


FIG. 3

FIG. 4



in the light of the above discussion and reconsider Claim 13.

The Rejections pursuant to 35 USC §103

The Examiner relies upon the following as evidence of unpatentability:

| | | |
|-----------|-----------|------------------|
| Hohmann | 4,598,518 | July 8, 1986 |
| Lapish | 5,035,099 | July 30, 1991 |
| Wilhelmi | 5,598,680 | February 4, 1997 |
| Frobosilo | 5,846,018 | December 8, 1998 |
| Liu | 6,098,364 | August 8, 2000 |

In Paragraph 6 of the Detailed Action, the Applicant's Claims 1-8 and 13-19 are rejected pursuant to 35 USC §103 as being unpatentable over Hohmann in view of Frobosilo and further in view of Wilhelmi.

In Paragraph 7 of the Detailed Action, the Applicant's Claim 9 is rejected pursuant to 35 USC §103 as being unpatentable over Hohmann in view of Frobosilo and further in view of Liu.

In Paragraph 8 of the Detailed Action, the The Applicant's Claims 10-12 are rejected pursuant to 35 USC §103 as being unpatentable over Hohmann in view of Frobosilo and further in view of Liu.

In Paragraph 9 of the Detailed Action, the Applicant's Claims 1-4 and 13-16 are rejected pursuant to 35 USC §103 as being unpatentable over Lapish in view of Frobosilo and further in view of Wilhelmi.

In Paragraph 10 of the Detailed Action, the Applicant's

Claims 5, 7, 8, and 17-19 are rejected pursuant to 35 USC §103 as being unpatentable over Lapish in view of Frobosilo and further in view of Hohmann.

In Paragraph 11 of the Detailed Action, the Applicant's Claim 9 is rejected pursuant to 35 USC §103 as being unpatentable over Lapish in view of Frobosilo and Wilhelmi and further in view of Liu.

In Paragraph 12 of the Detailed Action, the Applicant's Claims 10-12 are rejected pursuant to 35 USC §103 as being unpatentable over Lapish in view of Frobosilo, Wilhelmi and Liu and further in view of Hohmann.

In general the art relied upon is now discussed. It is respectfully urged that the Examiner erred in providing that Frobosilo '018 teaches a leg and a channel. The angle member 14 of Frobosilo '018 is a plate-like member constructed of heavy gauge metal and could not be combined in the manner suggested to provide a leg having the functional requirements of this invention.

The Examiner further errs by suggesting that a person having ordinary skill in the art (phosita) would modify Hohmann by Frobosilo and Wilhelmi. In the field of this invention, a phosita would know that the plate-like elements of Frobosilo and Wilhelmi would not fulfill the thermal transfer requirements of the construct and would fail, if combined as suggested. Thus, there is

a teaching away from rather than toward in this regard. Here it is instructive to note that Hatzinikolas, U.S. Patent 5,392,581 referenced in the Background faces the same problem.

Applicant's attorney has analyzed the 35 USC §103 rejection, starting with Paragraph 6 of the Detailed Action respectfully responds and reiterates as follows:

In Paragraph 6 of the Detailed Action, the Examiner rejects claims 1 through 8 and 13 through 19 as being unpatentable over Hohmann '518 in view of Frobosilo '018 and further in view of Wilhelmi '680. In reference to Hohmann '518 the Examiner has stated that *The wall anchor (12) comprises legs (A,B) with portions that extend perpendicularly from the body of the anchor and have channels (32). The mounting surface of the wall anchor (12) forms a covering portion that would preclude the penetration of air and moisture.* Hohmann '518 identifies bores (32), not channels, where the critical difference between the two types of features is that a bore will guide a fastener's point of entry but not provide any angular guidance, whereas a channel will guide a fastener along the length of penetration. Further, the bore (32) of Hohmann '518 is situated in the base while the channel (47 in the present invention, per amended paragraphs above) of the present application is an integral portion of the leg. The present invention contains

bores identified by the longitudinal axes (50) and (52) but has added channels (47) in order to provide more accurate guidance of fasteners. Note that the inboard legs of the present invention function cooperatively with the longitudinal axes and channels to provide this more accurate guidance of the fasteners, too. A guiding channel of this type requires a structure such as the inboard leg taught by the present invention. The outboard nature of the legs taught by Hohmann '518 would preclude the straightforward use of guide channels incorporated into the leg structures, thus teaching away from the use of such.

Another distinct and nonobvious functional difference between the inboard leg and the prior art outboard leg is that the inboard leg provides inherently substantially better environmental sealing than the prior art outboard leg. Both the inboard leg and the outboard leg create the same perforation through the substrate material, with the cross-sectional perimeter of the leg defining the path of entry through the perforation for any environmental contamination. However, the inboard leg, if substantially surrounded by a planar boundary of material as it is in the various embodiments of the invention, has the perimeter of the perforation it creates effectively sealed off from the environment by the surrounding planar boundary of material. In contrast, the prior art

leg situated at the end of the structure has by definition at least 50% of the associated perforation perimeter exposed to the environment, thus not effectively precluding the penetration of air and moisture.

Yet another difference between the inboard leg and the prior art outboard leg is taught in the newly added paragraph 82.1, wherein it is described that in actual observed installation conditions, the use of anchors formed with inboard legs corrects for the tendency found with prior art outboard legs to impart an arcuate and insulation-damaging path to the anchor as it is driven into the insulation.

Thus, the use of the inboard leg as taught in Claim 1 of the invention yields a novel and unobvious environmental sealing regime in comparison with the less capable types of environmental seals available with the prior art outboard leg.

The Examiner states *Liu, however, discloses a wall anchor having outwardly extending tubular members (210) that sheathe mounting hardware.* In Liu '364 column 2, lines 44-45, this apparatus is disclosed as **fastening member (210) such as bolt and plug.** An examination of Fig. 5 shows this to be an expansion anchor designed for use in concrete or similar hard, dense materials. This style of tubular member, upon having a bolt inserted and

tightened, exerts outward radial pressure upon the hole in which it has been placed, thus producing a clamping force to keep whatever is being fastened in place. Thus, the tubular member of Liu '364 is itself a mechanically integral part of the mounting hardware, not something simply serving as a guiding and positioning element as is the tubular leg taught by the present invention.

Further, as shown in Fig. 7 of the present invention, the fastener (148) guided by the tubular leg (156) of the present invention does not have any mechanical engagement with the insulation (116) and wallboard (117), and unlike the bolt within the tubular member of Liu '364 extends past the tube end and mechanically engages with the columns (117). The tubular leg (156) also provides no lateral clamping force against the surrounding material and in fact no clamping force at all, so the tubular member of Liu '364 must be seen as additionally teaching away from the tubular leg embodiment of the present invention. Additionally, Claim 9 has been amended to more clearly describe the geometric relationship between the tubular legs and the plate-like body.

Conclusion

It is respectfully urged that all the indefinitenesses have been removed by the present Amendment in Response to Non-Final Office Action.

It is respectfully urged that all the informalities cited by the Examiner have been attended to and corrected by the present Amendment in Response to Non-Final Office Action.

It is respectfully urged that the obviousness seen by the Examiner's reliance upon combinations of Hohmann '518, Lapish '099, Wilhelmi '680, Frobosilo '018, and Liu '364 is erroneous and that the present Application as amended hereby is patentably distinct thereover. Furthermore, the Examiner has erred by not provided the rationale for the application of the references.

With the above Amendment, it is respectfully urged that the Application is in condition for Allowance, and the Applicant looks forward to an early and favorable review.

If the Examiner has further questions that can be resolved by telephone, the Examiner is invited to call the undersigned.

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